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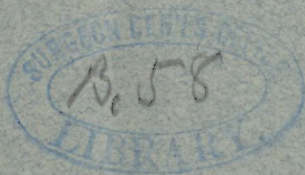
LACERATIONS OF THE CERVIX UTERI AS A  
CAUSE OF UTERINE DISEASE.

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[REPRINTED FROM THE BOSTON MEDICAL AND SURGICAL JOURNAL, SEPTEMBER 20, 1877.]



CAMBRIDGE :  
Printed at the Riverside Press.  
1877.







## LACERATIONS OF THE CERVIX UTERI AS A CAUSE OF UTERINE DISEASE.<sup>1</sup>

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WE are indebted to Dr. T. Addis Emmet for first recognizing this lesion as a cause of uterine disease, and for first demonstrating to the profession a ready and efficient means of cure by his operation of November 27, 1862. This operation as performed fourteen years ago is practically the same as that performed by him to-day, and by those who from him have learned to relieve so many women suffering from the effects of this injury.

That the above accident is a very frequent cause of uterine disease is indicated by the figures produced by Dr. H. T. Hanks at a meeting of the Medical Society of the County of New York, September 28, 1874, when he was able to show that of all the uterine cases treated by him at the Demilt Dispensary in five months of service, numbering two hundred and twenty-nine, in nineteen, or over eight and four tenths per cent., he recognized the above lesion.

During a residence of eighteen months in the Woman's Hospital of New York, of the four hundred and thirty-five uterine cases received for treatment, thirty-nine, or nearly nine per cent., were of the above class. Since then, of the one hundred and eighty-one cases which I had treated up to September, 1876, in private and hospital practice, eighteen, or nearly ten per cent., belonged to the same class.

That this injury is not only of very frequent occurrence, but that it takes place to such an extent that it is followed in time by serious changes, all of which are directly dependent upon it, is still farther shown by the fact that at the time Dr. Emmet read his valuable paper upon this subject, some two years ago, he had already operated for the remedy of this difficulty nearly two hundred times.

Where so large a percentage of uterine cases can be traced to one exciting cause, as we have here pointed out to be the fact with regard to the subject of our paper, it will certainly be well for us to make the matter one for careful study, for close clinical observation, and for the minute record of cases, from which, taken collectively, we may be able to deduce laws which may aid us not only in the more satisfactory treatment of the patient after the injury is done, but which may also assist

<sup>1</sup> Read before the Boston Society for Medical Observation, May, 1877.

the accoucheur in his attempt to prevent the accident, or in the early restoration of the part to its normal condition.

It is with a view of aiding the above purpose that I present the following cases which have been operated upon by me during the past three years:—

CASE I. A. T. entered the Woman's Hospital of New York February 24, 1874. She was a native of Ireland, thirty-five years of age. Married at nineteen, she gave birth to her first child one year afterwards, and a year following the second and last child was born, although she aborted twice subsequently. Both labors were quite rapid, and she dated her illness from the birth of her last child. She entered the hospital complaining of more or less bearing-down pain, and pain in the left groin extending down the thigh. Leucorrhœal discharge had been abundant for years. On examination the cervix was found low in the pelvis, and lacerated bilaterally to such an extent that the inner surfaces had rolled out and had become so hypertrophied that it was impossible with tenacula to restore them to their natural position. March 2d, the patient being etherized, I operated for Dr. Sims by cutting away the hypertrophied tissue to that amount that the everted lips could be rolled back into their original position, where they were secured by five silver sutures. Ten days after the operation two of the sutures were found to have cut out, having been twisted too tightly; the remaining ones were removed. In a month from the time of her entrance to the hospital she was discharged cured, the slight gaping following the cutting out of the two sutures having healed by granulation. Unfortunately this case could not be followed farther.

CASE II. S. W. was admitted to the Woman's Hospital December 8, 1873, suffering from sharp pains in the back and through the lower part of the abdomen, which were greatly increased by walking. She also complained of a leucorrhœal discharge of a thick and tough consistence. The patient was thirty-five years of age, had been married twelve years, had had one miscarriage at six months, and subsequently a child after a rapid labor, ten years before her admission to the hospital. For this latter period she had suffered from the above symptoms, and although not entirely incapacitated for work, yet her usefulness was greatly impaired by constant suffering. She had during this time been treated for "ulceration of the womb" by several physicians, who, mistaking the effect for the cause, had failed to benefit her. On examination the uterus was found retroverted, its cervix lacerated on the left side down to the vaginal junction, and very much hypertrophied, the surface being covered with the discharge already described. One week after the patient's admission to the hospital I operated upon the case for Dr. Emmet, for the closure of the lacerated cervix. The patient being etherized this was successfully done, the hæmorrhage,



which was considerable, being entirely controlled as soon as the sutures were introduced. She made a good recovery from the operation, and then, the uterus being replaced and some intra-uterine applications of impure carbolic acid being made, the womb gradually regained its proper position, and the patient, feeling entirely relieved of her suffering, was discharged from the hospital, cured, January 17, 1874. She was seen four months afterwards, and had continued well. The uterus was then in a normal position, and the cervix looked perfectly natural, no evidence of the operation being visible.

CASE III. M. B. was sent me from the western part of the State, May 20, 1874. She was an American, thirty-eight years of age. Married at eighteen, she had given birth to seven children, and had had four abortions, all of which had occurred since the birth of her third child, twelve years before. This third labor was unlike all the others in that it was very rapid, the pains being severe and forcible, with almost no intermission. She recovered very slowly, and then began to complain of sharp shooting pains through the lower part of the abdomen, dragging and bearing-down pains, and burning sensations in the uterine region. There was also present an excessive leucorrhœal discharge. All these symptoms gradually but constantly increased. The nervous state, too, was most deplorable. She was unable to sleep at night or to keep quiet by day, crying at the least opposing circumstance. I can truly say that I have seldom seen a patient whose nervous system was in such a shattered condition. The patient had been under almost constant treatment for so-called ulceration of the womb for four years before coming under my care, and had been confined to the bed for the greater part of that time. In examining the case I found the laceration of the cervix to be confined to the left side, but had extended through the vaginal junction, having gone into the cellular tissue beyond; the everted surfaces were greatly hypertrophied, and had undergone cystic degeneration. The cervix was presenting at the vulva, the whole organ being retroverted. The perinæum had been torn down to the sphincter muscle, and a large cystocele had formed. It was found necessary to give the patient some preparatory treatment on account of the cystic degeneration of the cervix, before performing the operation, which was done June 16th, or in about a month from the time when she was first seen by me. The laceration was the most extensive one that I had ever operated upon, requiring seven sutures to close it, the line of union being fully one and a half inches long. The result was highly satisfactory. When the sutures were removed perfect union was found, and within a month from the time of the operation the patient could walk one and a half miles comfortably. Subsequently operations were done for the cystocele and ruptured perinæum, after which, the uterus having regained

its natural position, the patient was sent home, cured. She has been heard from from time to time since, and has continued to do well, being able to keep a house full of boarders, doing all the work herself, including the washing and ironing. She has been once pregnant since, but fearing a return of all her troubles with the birth of another child, without any advice she caused an abortion at the third month.

CASE IV. B. T. was sent me for treatment May 14, 1875. She was an American lady, twenty-eight years of age, and had suffered since the birth of her first child, which was delivered with instruments after a labor of ten hours; four years previous to the above date her second and last child was born naturally, one year after the first. The complaints made by this patient were not unlike those in the preceding cases, except that there was a much greater inability to regain strength after her first labor, and a tendency to the most violent attacks of headache on the slightest exertion or even after being present where there was any confusion or noise. The physician who kindly referred the patient to me told me that for some time he had attempted to heal an eroded condition of the os uteri by various applications, and that although she seemed better generally for the time being, yet the erosion had not healed. As the cervix was brought into view by the aid of a Sims speculum, the eroded condition already referred to presented itself, which, by rolling into the canal with a tenaculum in each hand, showed itself to be the lining membrane of the canal, everted after the slight bilateral laceration of the cervix which had undoubtedly taken place at the birth of her first child. There was also a laceration of the perinæum and the remains of an old attack of cellular inflammation of the left broad ligament, which held the uterus somewhat firmly to that side. The operation had to be delayed for more than four months, or until the adhesion on the left side of the uterus had disappeared. The operation itself did not differ from those already described, except that on account of the very anæmic condition of the patient the precaution was taken to use a uterine tourniquet. She recovered without a bad symptom, and has since enjoyed good health. When I met her some months afterwards she told me that she was making up for lost time, saying that she had gone to six entertainments in as many consecutive evenings without feeling any ill effects therefrom.

CASE V. M. S. came to me November 15, 1875, complaining of great leucorrhœal discharge, which had annoyed her since the birth of her first and only child, two years before. She was a native of this country, and was twenty-three years old. Her labor occurred at seven months. She remembered none of the details, as she was unconscious for four days. The child was born without forceps being applied, notwithstanding that the patient had repeated convulsions for forty-eight hours previous to the delivery. In twelve days after her labor she at-



tempted to get up; but, as she expressed it, the "blood flowed so freely that she was obliged to keep her bed for some time longer." Her strength returned gradually, and since getting up from her labor she had suffered no pain of any kind, and would not have presented herself for treatment except for the annoyance of the discharge referred to above. On examination, the cervix was found to be torn very irregularly on the left side, quite through the vaginal junction. The surfaces of the laceration had rolled out, and looked highly injected. There was very little hypertrophy and no cystic degeneration. It was difficult in this case to make the patient understand the importance of an immediate operation. It was, however, soon consented to and performed, being similar in its details to those already described. Since then she has been free from the previous annoyance, and we feel sure saved herself a great deal of suffering which must have followed had not the operation been done.

As the remaining six cases do not present features unlike those already given, we will not lengthen this paper by a prolonged recital of them here, but taking them together with those which are now under treatment awaiting an operation, and those in which it has thus far been found impracticable to perform the operation, we will state some points in their history which are of special interest.

We have, then, the histories of eighteen cases where this lesion has occurred. These include all the cases of this class which have been treated by me in private or hospital practice up to September, 1876. To these we may add the two cases upon which I operated in the New York Woman's Hospital, the full histories of which I retained, giving us twenty cases in all, from which we derive the following facts.

In ten cases the injury occurred with the first labor, and in an equal number at some other than the first confinement.

In ten cases the labor was rapid and the pains usually very severe. In six others the labor was more or less delayed, and finally accomplished by the aid of instruments; in one, the waters having been evacuated two weeks before, the labor was much prolonged; in one the labor occurred at seven months, and after two days of convulsions the child was born naturally; in another the labor was normal; and in the remaining one the character of the labor was not specified.

In all instances we have reason to believe the presenting part to have been the head. In fourteen the laceration was of the left side of the cervix alone. In the remaining six it was bilateral. In sixteen the injury had been followed by some structural change or malposition, directly or indirectly dependent upon this accident, and in the remaining four time enough had not elapsed since the injury for such change to have taken place, and the operation was performed to restore the cervix to its natural condition before such changes should be inaugurated.

In all the cases except one there was an abundant leucorrhœal discharge, which was characterized as thick and tough, and was compared to the white of an egg. In thirteen there were irregularities in menstruation, and an equal number had been treated previously for so-called "ulceration of the womb" or erosions.

Eleven of the cases were operated upon with the most satisfactory results.

In reviewing the foregoing facts it is interesting in the first place to notice the character of the labor in which this accident occurred. In half of the cases this was denominated as rapid and the pains usually very severe; or in other words we understand the force of the uterine contractions to have been so great, even from the commencement of the labor, that time enough was not given for the full dilation of the os, and the rent was made at the point where the greatest amount of force was brought to bear. In three fifths of the remaining cases the labor was prolonged, and finally accomplished by instruments. If, then, there existed any rigidity about the os at the time the forceps were applied, these may have been the immediate cause of the laceration.

It would seem, then, from our cases, that we are not to look for this accident most frequently among the tedious, difficult, or instrumental cases, but rather among those where from the rapidity of the labor we have been led to congratulate ourselves that the patient has passed favorably through her trial.

It is interesting, again, to see the frequency with which the laceration took place on the left side of the cervix. This same fact was observed and most satisfactorily explained by Dr. George T. Harrison in the December number of the *Virginia Medical Monthly* of 1874, where, referring to the mechanism of labor, he shows that with the most frequent form of labor, occurring with the occiput directed to the left, more or less anteriorly, we may look to the above point for the most frequent place of injury. Again, Dr. Emmet, in his most valuable article on this subject, published in the November number of the *American Journal of Obstetrics* for 1874, shows that although lacerations of the cervix most often occur in the median line anteriorly, yet on account of the raw surfaces being kept in contact by the lateral pressure of the vagina these lacerations heal, and that "in practice we have chiefly to deal with the consequences of lateral lacerations," because of the great tendency of the tissues to roll out.

It is still farther interesting to see from our summary of cases that in every instance where sufficient time had elapsed from the occurrence of the injury some structural change or misplacement had followed. When we consider that the connective tissue of the cervix uteri is in excess of the muscular tissue, we can understand at once why its proper involution should be so readily interfered with; for, as shown



by Dr. Lott,<sup>1</sup> and referred to in the article by Dr. Harrison, already noticed, the very condition of tetanic contraction of the body of the uterus, where the muscular tissue predominates, which so influences its further nutrition and consequently its involution, would have little effect upon the cervix. We can easily see how materially affected the proper involution of this lower segment of the uterus would be by the occurrence of a lateral laceration of its tissues, and in fact where this injury has extended through or even to the vaginal junction the cervix is very apt to remain in a state of subinvolution. The process of eversion or rolling out of the cervical canal, which soon follows the puerperal state where this accident has happened, and which is so fully described by Dr. Emmet in the article to which we have already alluded, brings the lining membrane of the canal in contact with the posterior wall of the vagina, the friction against which soon occasions an abrasion of this tender membrane. The constant irritation keeps up as constant a hyperæmia of the part, which in its turn favors the hyperplasia that is almost sure to follow.

There is still another condition which follows upon this state of eversion of the cervical canal, namely, that of cystic degeneration of the cervix. By these terms are meant the formation of numerous cysts from the muciparous glands of the canal, the mouths of which have become occluded by their exposed and unnatural position. It must be evident to all that the combined influences of the above conditions, increasing the size and weight of the cervix, tend to produce some misplacement of the uterus.

We regret to observe that in more than one half of our cases the patient had been treated more or less persistently for so-called "ulceration of the womb," and had derived not only no permanent benefit from the treatment, but had been made worse, as the increased suffering proved. In these cases when a mass of cicatricial tissue is formed over the cervix as a result of the frequent applications of caustic, which is very likely to be the solid nitrate of silver, the nerve filaments becoming compressed, the patient is kept in a state of almost constant suffering. Dr. Emmet, in his pamphlet on the Surgery of the Cervix in Connection with the Treatment of Certain Uterine Diseases, compares this condition to an irritable stump where some nerve filament has been involved in the cicatricial line after an amputation.

Dr. Clifton E. Wing has well pointed out the frequency with which this lesion of the cervix is mistaken for ulceration, in an article in the *JOURNAL* of March 16, 1876.

Having reviewed some of the most interesting points brought out by our summary of cases, let us inquire a little more fully into the rational and physical signs present in these cases as a means of diagnosis. At the

<sup>1</sup> Anatomie und Physiologie des Cervix Uteri. Von Dr. G. Lott, 341.

time of labor neither of these classes of signs is at all well marked, for it is the secondary effects of the laceration which make the rational signs the most noticeable, and when the accident occurs the tissues are so soft that it would not be readily recognized even by the touch ; therefore the injury is likely to pass unobserved at this time, unless, as Dr. Emmet has shown, the tear has extended beyond the cervix into the vaginal and cellular tissues, and has occasioned an unusual hæmorrhage.

The first thing which attracts our attention in the list of symptoms is the tardy recovery of the patient, a "bad getting up," as she expresses it, and when more than the usual time has elapsed, and she thinks she should be able to be about, she feels somewhat discouraged on account of her inability to stand ; or it may be that with the attempt to walk more or less hæmorrhage is noticed. As time goes on, intercourse may be complained of as being painful, or perhaps followed by a slight show ; there is ever present backache, a sense of weight in the pelvis, pains extending down the thighs, a sensation of heat or burning in the hypogastrium, irregularities in menstruation, and throughout the whole there persists a more or less abundant leucorrhœal discharge. As the nervous system is continually taxed by the foregoing symptoms, it finally claims its full share in the trials to which the patient is subjected, and she is probably by this time a confirmed invalid, and may indeed think herself fortunate if she is not confined to her bed, a truly deplorable wreck.

The physical signs change very much, of course, as the case progresses. At an early stage we are struck by the size and softness of the cervix, and by the aid of the speculum we see at once the everted membrane of the canal, the epithelial layer of which is often abraded ; later we have the large flattened, appropriately termed mushroom cervix, with its firmer tissue and shot-like feel ; and still later we find the cervix hypertrophied, the tissue firm and indurated, and if it has been treated with caustics the surface covered over with cicatricial tissue and the substance as hard as a piece of granite. Or the case having been left to itself the epithelium becomes abraded, and the constant friction to which the part is exposed keeps it constantly irritated, so that the appearance might readily be mistaken for that of malignant disease. To all these appearances in this latter stage we might have added the various malpositions which have been occasioned by the change which has taken place in the cervix.

Obviously a case of this class must go on indefinitely unless measures are taken to repair the injury. Nor does the long-looked-for menopause prove that haven of rest anticipated ; for the misplacements which have been induced by this accident may remain and still exert the most deleterious influence on the health of the patient. It is sometimes necessary to advise some preparatory treatment before resorting to the



operation, as in Case IV., where the evidence of an attack of cellular inflammation remained, which was removed by the use of the hot vaginal douche and the local application of the tincture of iodine. Or if the case has been one of long standing and the cervix is in a condition of cystic degeneration this will require attention, in order that when the everted surfaces of the canal are rolled back into position again at the time of the operation, none of these little cysts may be included in the wound.

Dr. Emmet's operation, which he so fully describes in his paper, is certainly one of the most practicable and highly satisfactory known in the department of uterine surgery. It consists simply in denuding the surfaces of the laceration and in bringing them together with silver sutures, which are to be left in place for eight days or more, as the case may be.

The dangers of the operation are primarily hæmorrhage, which can be usually controlled by the use of the uterine tourniquet, or subsequently by the twisting of the sutures; and secondarily from peri-uterine inflammation, which, if proper care is used, will very rarely happen.

From the fact that this injury has been shown to be of such frequent occurrence, practitioners cannot be too strongly impressed with the importance of examining all patients who have been confined before they are discharged from their care with the assurance that they are perfectly well again, and by thus doing they may sometimes save their patients years of suffering by rectifying the damage before the long train of diseases consequent upon this lesion shall have shown themselves.





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